

GCAN-211

WiFi-CAN converter

User Manual



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1. Introduction

1.1 Overview

The GCAN-211 is a converter that integrates two CAN interfaces, one Ethernet interface and one WiFi interface. With GCAN-211, users can connect CAN-Bus networks and WiFi to extend the range of CAN-Bus applications.

1.2 Properties at a glance

- Power supply: 9~30V(50mA, 24V DC)
- Working temperature range from -40 to 85 °C
- CAN-Bus supports CAN2.0A and CAN2.0B frame format, conform to ISO/DIS 11898 standards
- CAN baud rates range from 5Kbps to 1Mbps
- CAN-Bus interface with electrical isolation
- CAN-Bus isolation module insulation voltage: DC 1500V
- Standard Ethernet interface: RJ45, supports 10 / 100M adaptive
- The working port, the target IP and the target port can be modified
- Support agreement: ETHERNET, ARP, IP, ICMP, UDP, DHCP, DNS, TCP
- Compatible with SOCKET work (TCP Server, TCP Client, UDP)
- 2.4G WLAN interface, in line with IEEE802.11a / b / g standard
- AP mode and station mode
- Size:(L)118mm * (W)94mm * (H)23mm(size without antenna)

2. Installation

2.1 Dimension drawings

The shell size of the GCAN-202 is shown in Figure 2.1.

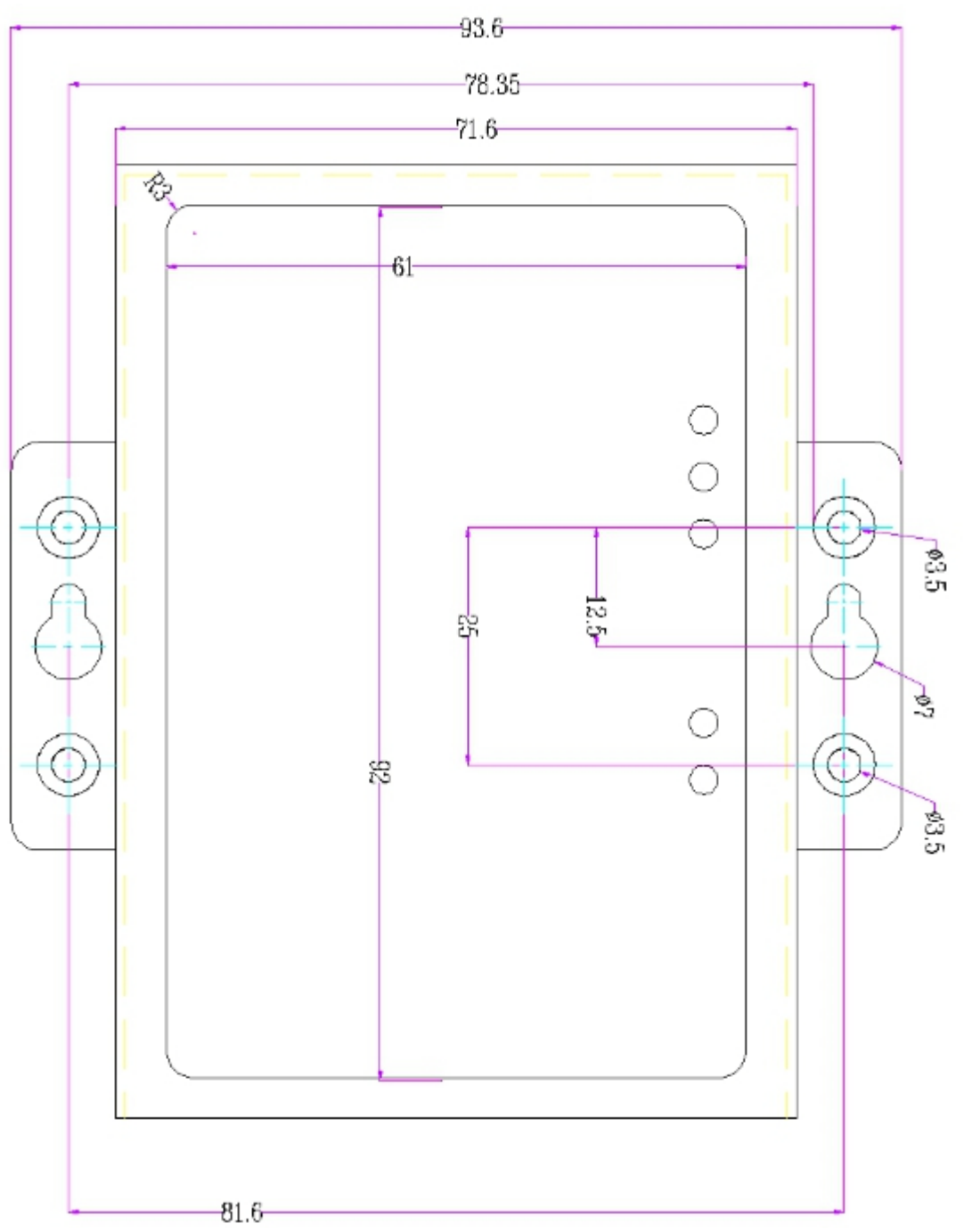


Figure 2.1 Dimension drawings

2.2 Connect to PC

Users can use WiFi to connect directly to the device.

2.3 Connect to CAN-Bus

In practical use, most of the time just connected the CAN_H to CAN_H and CAN_L connected to CAN_L, then communication can be realized.

3. converter used

GCAN-211 converter uses a network cable to connect to PC, uses +9 ~ 30V DC power supply(recommended + 12V or + 24V power supply), uses the "GCAN-211 Config" software to configure.

3.1 Restore the factory settings

GCAN-211 WiFi default IP: 192.168.1.11, If the user has modified the IP and forget it. By pressing the reset button, you can restore the factory settings.



After GCAN-211 is powered on, you can find the reset button as shown above. Then press the button for about 5-6 seconds. When the indicator flashes, the system is restored successfully.

Please note: PC and GCAN-202 must be in the same network segment.

3.2 The structure of CAN-Bus

This is CAN-Bus connection, as shown in figure 3. 2.

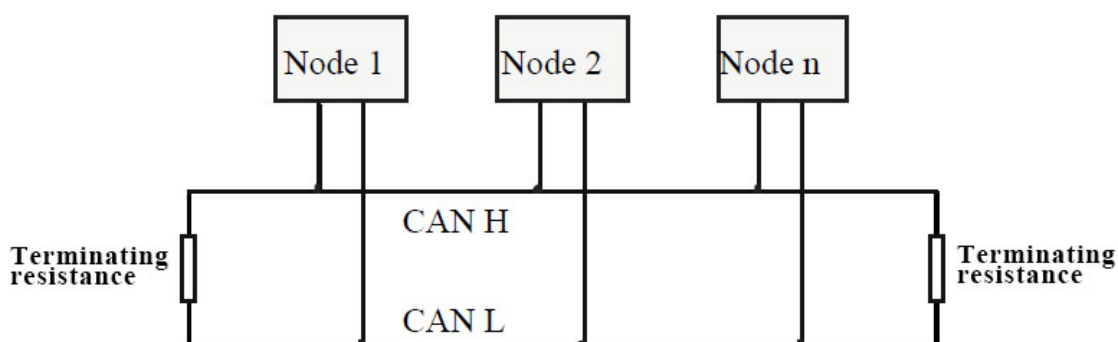


Figure 3.2 Topology structure of CAN-bus

3.3 Termination resistor

CAN-Bus requires two $120\ \Omega$ termination resistors in the furthest of the two terminals, as shown in figure 3.3.

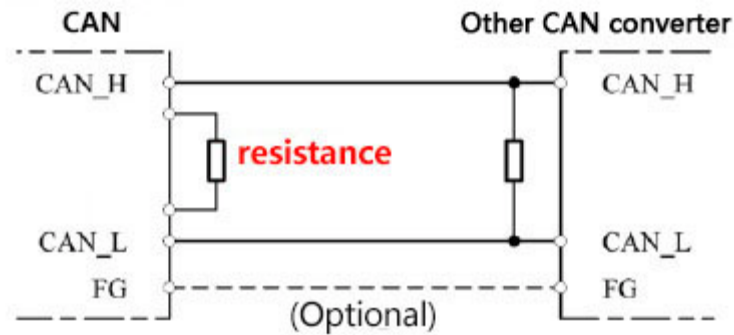


Figure 3.3 GCAN-204 connection to other CAN converter

Please note: you should connect the two ends of the resistor to CAN_L and CAN_H respectively.

3.4 Indicator light

GCAN-211 converter has one PWR indicator, one SYS indicator, one LAN indicator, two CAN indicator, to indicate the converter status. More functions are shown in table 3.2.

Indicator light	Status	Indicates the status
PWR	Bright	Power supply is normal
	OFF	Power supply failure
SYS	OFF	Converter initialization failed
	Blinking	Converter initialization pass, standby state
CAN1、CAN2	Red	CAN-Bus communication failure
	Green blinking	CAN-Bus has data transmission
	Blinking with SYS light alternately	The converter enters the reset state

Table 3.2 Status of the GCAN-202 indicator

4. Configuration instructions

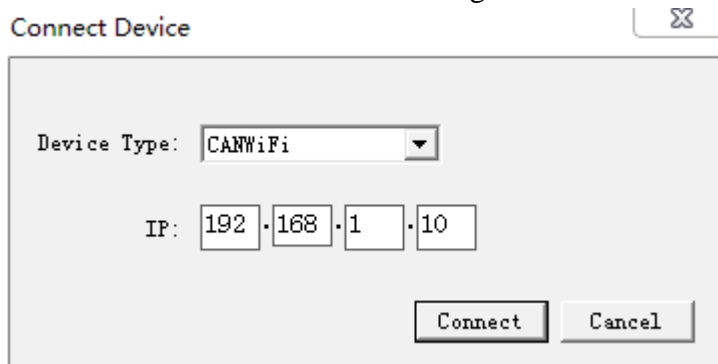
New GCAN-211, network port IP: 192.168.1.10, default WiFi IP: 192.168.1.11.

Note: You must configure the converter using the network port.

Note: IP port can not be changed.

4.1 Connect the software

Software needs to fill in IP address when connecting to GCAN-211.



Click "Connect", and then it will appear the following software interface.



"Connect" - connect the converter(Do not need to click again)

"Upload" - read converter configuration information

"DownLoad" - download the configuration information to the converter's Flash

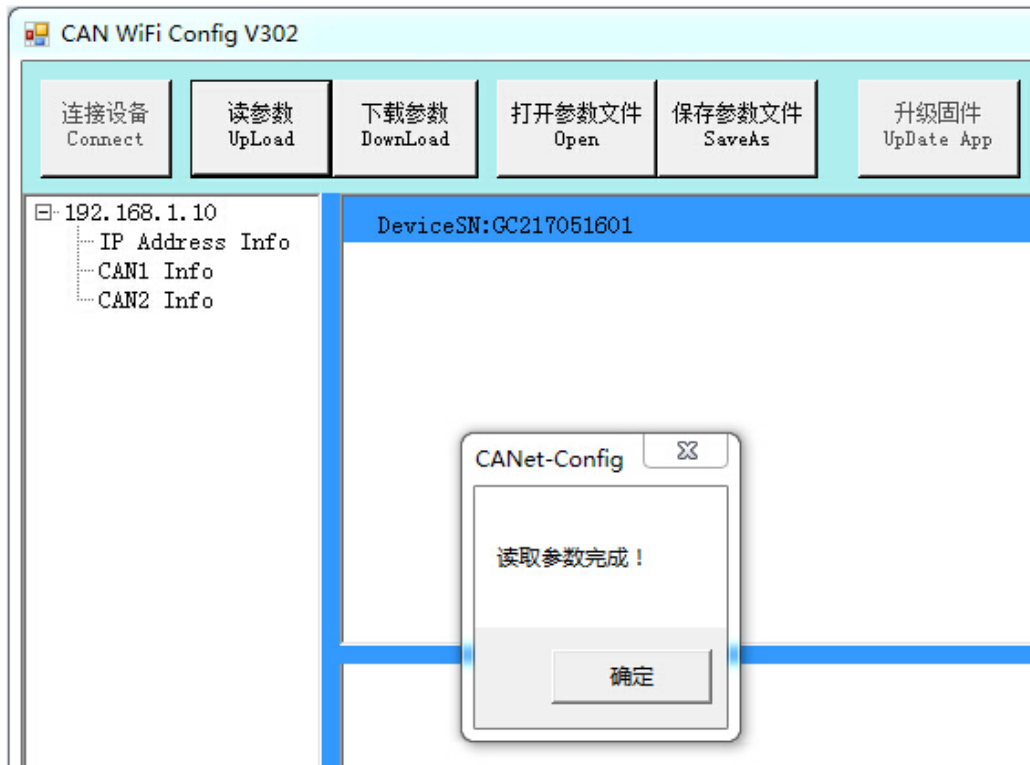
"Open" - open the configuration information file in the PC

"SaveAs" - save the configuration information file to your computer

"UpDate App" - upgrade the GCAN-211 firmware kernel. (Please use this function under guidance)

4.2 Basic information

After the connection is successful, click "UpLoad" to upload the parameters of the converter to the computer.



"IP Address Info" - WiFi side parameter setting

"CAN1 / CAN2 Info" - CAN bus parameter setting

4.2.1 WiFi parameter settings

Click "IP Address Info" to enter the WiFi parameter setting interface



"IP Address Info"-set the WiFi IP address

"GateWay"-set up a WiFi gateway

"Subnet Mask"-set the WiFi subnet mask

"DNS"-set up DNS

“Enable DHCP”-whether to use DHCP

“Wifi SSID”-set the name of the WiFi, default: CANWIFI-II

“Key Type”-set the encryption mode(WPA2 is recommended)

“Key”-set the password for WIFI

“Wifi Mode”-set the WiFi mode of operation

“Connect AP SSID”-in the client mode, the name of the AP to be connected

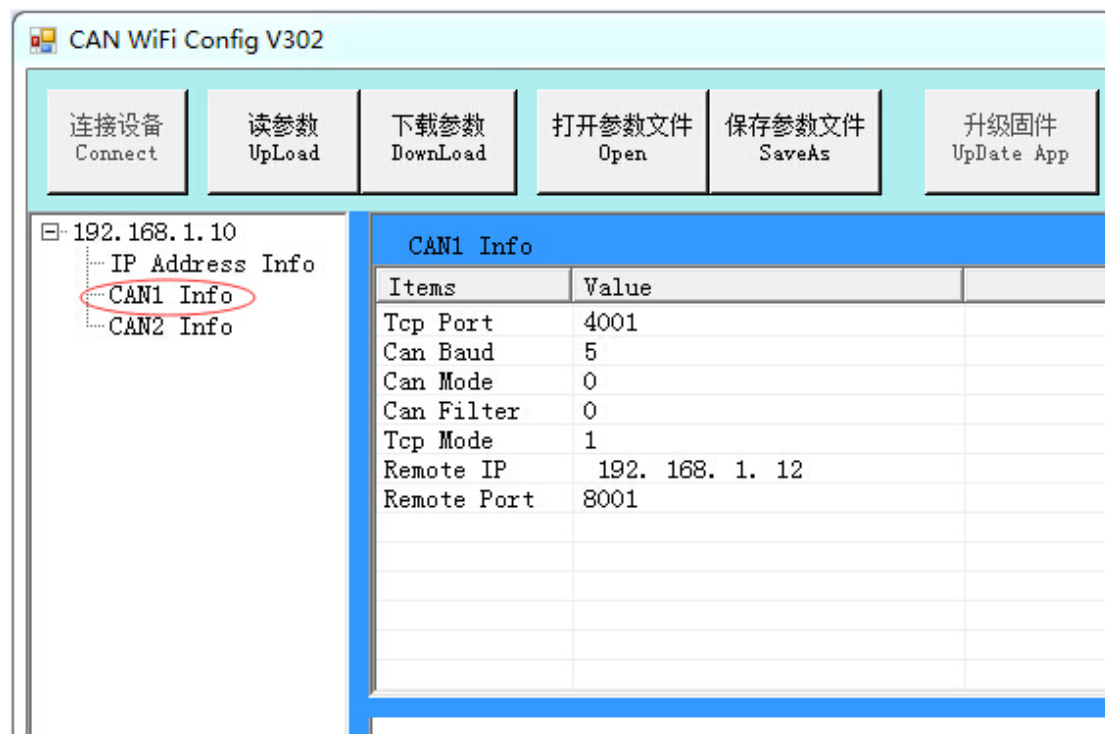
“Connect AP Key”-in the Client mode, the password of the AP to be connected

“Data Mode”-set the data transfer format, with 13 bytes of data and 20 bytes of data

Note: When the communication to determine the wireless network card IP and device IP in the same network segment.

4.2.2 CAN-Bus parameter setting

Click "CAN1 / CAN2 Info" to enter the CAN-Bus parameter setting interface.



"TCP Port" - set the CAN-Bus communication port

"CAN Baud" - sets the CAN-Bus communication baud rate

"CAN Mode" - set the CAN-Bus operating mode

"CAN Filter" - not open, the default is set to 0

"TCP Mode" - set the TCP operating mode

"Remote IP" - set the destination host IP address

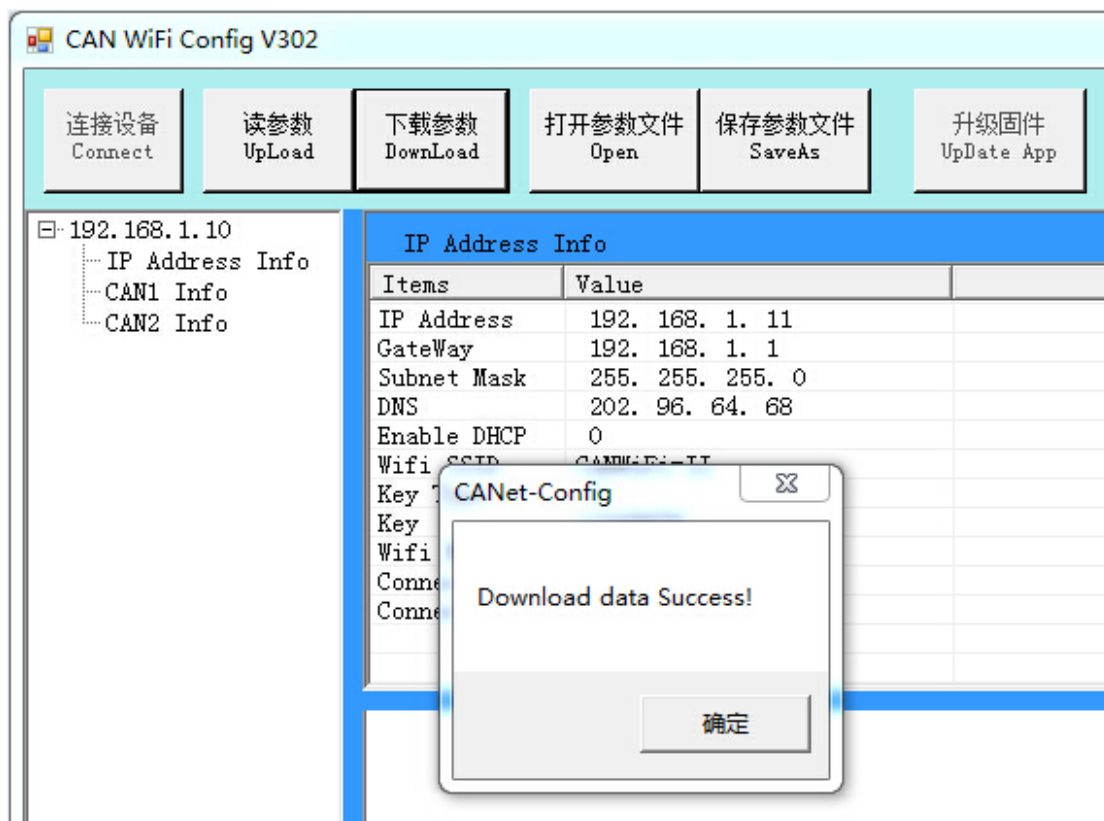
"Remote Port" - set the port number of the destination host

Note: "Remote IP", "Remote Port" is valid only in TCP Client mode and UDP mode.

4.3 Finish the configuration

When the configuration is complete, click "DownLoad" to download the

configuration information into the "Flash" of GCAN-211 .



Please note: power-on again after the completion of the download, and then the new configuration will take effect.

4.4 Save / load the configuration file

You can click "SaveAs", save the data in the computer. This configuration file can also be opened by the button "Open" for later use.

4.5 Upgrade GCAN-202(use this function under guidance)

If you need to upgrade, please contact us.

5. WiFi connection

5.1 AP mode

AP mode: GCAN-211 as a hotspot, receiving other WiFi device connection mode, like a wireless router.

CAN WiFi Config V302

连接设备 Connect 读参数 UpLoad 下载参数 DownLoad 打开参数文件 Open 保存参数文件 SaveAs 升级固件 UpDate App

192.168.1.10

- IP Address Info
- CAN1 Info
- CAN2 Info

IP Address Info	
Items	Value
IP Address	192. 168. 1. 11
GateWay	192. 168. 1. 1
Subnet Mask	255. 255. 255. 0
DNS	202. 96. 64. 68
Enable DHCP	0
Wifi SSID	CANWiFi-II
Key Type	3
Key	12345678
Wifi Mode	1
Connect AP...	GCANWifi
Connect AP...	12345678
Data Mode	1

Wifi Mode

设置Wifi工作模式，1=AP模式，2=Client (station) 模式

5.2 Client(station) mode

Client (station) mode: GCAN-211 as a client connected to the AP hotspot, the realization of wireless access network functions.

CAN WiFi Config V302

192.168.1.10

- IP Address Info
- CAN1 Info
- CAN2 Info

IP Address Info	
Items	Value
IP Address	192. 168. 1. 11
GateWay	192. 168. 1. 1
Subnet Mask	255. 255. 255. 0
DNS	202. 96. 64. 68
Enable DHCP	0
Wifi SSID	CANWiFi-II
Key Type	3
Key	12345678
Wifi Mode	2
Connect AP...	GCANWifi
Connect AP...	12345678
Data Mode	1

Wifi Mode

设置Wifi工作模式, 1=AP模式, 2=Client (station) 模式

6. Technical specifications

Connection	
PC interface	Ethernet interface, RJ45
CAN interface	Terminal blocks
Interface characteristics	
Ethernet interface	10 / 100M adaptive
CAN interface	ISO 11898 standard, CAN2.0A/B
CAN baud rate	5Kbit/s~1Mbit/s
Electrical isolation	1500V, DC-DC
CAN termination resistor	Has been integrated, through the DIP switch to select whether to enable
Power supply	
Power supply voltage	+9~30V DC
Power supply current	50mA (24V DC)
Environmental testing	
Power supply voltage	-40℃~+85℃
Power supply current	15%~90%RH, no condensation
EMC test	EN 55024:2011-09 EN 55022:2011-12
Protection grade	IP 20
The basic information	
Outline size	118mm *94mm *23mm(size without antenna)
Weight	220g

Sales and service

Shenyang Guangcheng Technology Co., Ltd.

Address: Industrial Design Center, No. 42 Chongshan
Middle Road, Huanggu District, Shenyang
City, Liaoning Province.



QQ: 2881884588

E-mail: 2881884588@qq.com

Tel: +86-024-31230060

Website: www.gcgd.net

Sales and service Tel: +86-18309815706

After - sales service telephone Number: +86-13840170070

WeChat Number: 13840170070